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Craft as More-Than-Human

Practice-led research in a posthumanist perspective

ABSTRACT

This article considers craft science and practice-led research in light of more-than-human approaches to practice under the heading posthumanism, as found within humanities and social sciences in recent years. Practice-led research within craft science, represents a vital and ground-breaking field of inquiry, as an embodied subjective field of examination with an impressive ability to gain deep knowledge of various forms of practices. One aspect of practice that this research seems less able to grasp, is a broader practical connection between multiple ontologies of human and non-human practice. Going beyond a purely human phenomenology of craft, this article seeks a more symmetrical and post-anthropocentric approach to knowledge and materiality, as practice in multiple ontologies. This would mean a shift in how craft science view practice, from being a strictly operational aspect adhering to human practitioners, to practice as an ongoing more-than-human process by which phenomena and practitioners are brought into being and are maintained.

Keywords:

Practice-led research, craft research, post humanism, post-anthropocentric, multiple ontologies.

INTRODUCTION

Reality clearly consists of more than practice. Even so, the physical reality that we are a product of and dwell within is dynamic and in constant change. So much so, that realities can be thought of as emergent, or as being enacted in diverse forms of interplay between various practitioners/agents in multiple practical contexts (Mol 1999).

A distinct posthumanist turn within humanities and social sciences in recent years, points to a more-than-human oriented focus on materiality and knowledge enacted in practice, within a wider field of practice driven analysis. Craft science, and practice-led research in particular, can offer deep under-

standings of practical skill, craft-related contexts and craftsmanship. However, deep immersions of phenomenological research, leading to a solid subjective focus on human-crafting relationships, comes at a price, in terms of a priori defining itself as anthropocentric. This article focuses on symmetrically viable possibilities for practice led research to incorporate a broader field of multiple practical ontologies. This might necessitate a shift in how craft science view practice: More than an aspect strictly adhering to human practitioners, practice would need to be taken as an underlying epistemology for how phenomena (including practitioners themselves) are brought into being and are enacted through practice in multiple more-than-human lifeworlds. A consequence would be a need to centre analysis of practice within overlapping worlds of practice and agency.

PRACTICE-LED RESEARCH

Practice-led research is a vital methodology within craft science. Utilizing different approaches with a high degree of interdisciplinarity including an important non-academic focus on competence and skill, this research has much to show for itself with regard to important insights into socio-material interaction (Candy, 2006; Groth, 2017; Mäkelä, 2007; Mäkelä et al., 2011; Niedderer, 2013; Smith et al., 2014). In broad terms; versions of practice-led research are capable of analysing practice along two dimensions: in terms of great immersive depth, but also as practice within a larger social field (Rust et al., 2007, pp. 10-13, 66). Dealing on one hand with the embodied practice of the expert practitioner/artisan, the other need to incorporate both experts, non-experts as well as non-human agents at work in landscapes of practice. Practice-led research can engage with both. Even so, certain properties of the practice of practice-led research can be identified that lend both strengths and weaknesses to our ability to follow either road as far as they need to go:

- *Practice-led research is practice driven:* This gives unique agency to the research process itself, but may also gravitate research focus to practice as singular.
- *The practitioner often is the researcher:* Being a highly useful direct approach to practice, this may also frame practice in relation to singular practitioners, possibly bypassing essential aspects of multiple and socialised contexts of practice.
- *Pragmatic use of phenomenology:* As a highly useful analytical framework directly grounded in the subjective human sensibilities of the practitioner, phenomenology comes at a price; double-castings the embodied practitioner as an intangible mental point-of-view among dichotomies.
- *Anthropocentric focus:* Within a practitioner's subjective perspective, multimodal forms of observation and documentation becomes instantly usable, but at the same time restricting multimodality to human sensemaking.
- *Active use of the researcher's agency as practitioner;* is another strength, but also a possible blind spot; as highlighting human agency also risk drowning out participation of other, more obscure, passive or indirect forms of agency.

This article seeks a possible larger common ground for the formation of practical knowledge, with specific focus on multiple aspects of practice surrounding us. This implies that the strengths of a predominantly anthropocentric focus of practice-led research either is able to extend or be seen as decentred beyond frameworks of human phenomenology. Essential aspects of practice are more peripheral, has other participants than humans, may be centred around non-human practitioners, and multiple versions of practical realities may be centred around the same material aspects of reality. Ontologies are overlapping practical contexts where context specific working knowledge and materiality are enacted (Mol, 1999), containing agents, conditions and materials that both adhere to humans, but may also be contexts centred slightly beside ourselves (Law, 1992). The full picture of engaging in practice, is the more-than-human dynamics that in practical terms brings about and generates materiality, knowledge, practical skills and practitioners alike (figure 1 - 4).



FIGURE 1-4: Crafting archaeology in four versions of flint ontology, enacting different materialities, practical knowledge and practitioners of flint. Figure 1 (upper left): Flint practiced as archaeological excavation. Figure 2 (upper right): Flint as archaeological materiality, in this case a two-platform flake core, patinated by long exposure to open elements. Figure 3 (lower left): Flint practice as tool making and also experimental archaeology. Figure 4 (lower right): Flint practice as the captivating search for raw materials and artefacts. Photos: Ragnar Vennatrø, NTNU University Museum, 2012.

THE PRACTITIONERS TOOLKIT

A glance at any handy object or everyday toolkit, as well as the familiar yet strangely specific content of material-practical contexts surrounding us, gives clues that the multiple contexts of practitioners working knowledge, one version being a human perspective, are several things at work at once.

What is the practitioner's toolkit? (Høgseth, 2007, pp. 34-56). And how do we connect the tools more closely with the multiple practice of practitioners and things, humans and non-humans? Or the other way around: How do toolkits, and what they do, and how everything is done, define us? Martin Heidegger postulates that being in the world is a co-existence with other entities that in human terms involves empathy, presence and commitment: A reality characterized by the fact that humans and non-humans are symmetrically interconnected, interwoven, and mirror each other. In order to avoid purely anthropocentric ontologies, Heidegger emphasize being-as-history and not being-as-human as the hub intertwining human acknowledgment to reality (Heidegger, 1962). Maurice Merleau-Ponty (2003/1945, pp. 82-83, 121-122) more directly states the lived body as the primary link between man and reality. Merleau-Ponty highlights our embodied immersion in the world, but at the same time reduces our connection to the world as a subjective phenomenological link. Building on theories of direct perception within ecological psychology (Gibson, 1979), Tim Ingold reinstates embodied practice as a more-than-human aspect of dwelling (Ingold, 2000, pp. 42, 185). As dwellers, through everyday practice and dealings (Umgang) with things, we are in a state of conscious and unconscious recognition of the world (Dreyfus, 1991, pp. 60-61). The worldbuilding dynamics of practice, as Bruno Latour points out, takes place in the Middle Kingdom between dichotomies, to be analysed without the metaphysics of the modern (Latour, 1993, pp. 47-48).

From a human perspective, practitioners relate to environment, materiality, climate, nature, things; by our use or engaging them in Umgang. Things can be somewhat functional to us; for example, as tools. Heidegger refers to this functionality as Zeug (1962, pp. 91-102), which roughly translates as tools, but in a more general sense as materiality; materials and objects engaged and modified by humans. Heidegger suggests the term Zuhanden (ready to hand) to explain this everyday practice and interaction with things. As such, things link together in functional chains of reference, where no tool is isolated, but always in context of other things. In Umgang, we are attentively intertwined with our lifeworlds through socio-material practice into the physical context; the things and the surroundings (Heidegger, 1962, p. 103). Cycling unites us with the bike, where the cyclist and the bicycle function as a single unit. The bicycle becomes an extension of our body, and through the distinctive function, characteristics and quirks of the bicycle we are connected to roads, signs, other bikes, cars, pedestrians, landscapes, other cyclists, and so on. In our everyday lives we are always engaged with and into things, we exist, we make, and practice tightly interwoven with them. The co-existence of humans and things will always be a frame of reference for us (Heidegger, 1962, p. 344).

At the same time, Heidegger links tools to their intrinsic practical function and their ability to change and manipulate something (Heidegger, 1962, p. 97). The hammer is in distinctive ways connected to practice; to the process of making something connected with nails; the nail is connected to the plank, the plank to the floor, the floor to the house, the house to the village, and so on. Underlying any conceptions of human practical interactions with things, is Heidegger's notion of things initial practical openness to the world. In his famous lecture *Das Ding*, Vortrag gehalten am 6. Juni 1950, Heidegger talks of the thinging of things, or how the pot is potting (Olsen, 2010, p. 81; Skar, 2016). As something distinct from things as tools (Zeug) in the hands of humans, the thinging of things is what things bring to this interaction (the practice of being there as non-human agents). This distinction is central to any symmetrical post-anthropocentric analysis.

As George Harman argues, Heidegger's term Zuhanden must be understood as not just the grip of the hand on the tool, but something more basic and existential; being a practitioner in the world (Harman, 2002). The carpenter will not necessarily see the thing (for example; the axe in relation to the timber) when working with it, but still be skilfully involved with it: An acquired characteristic and condition based on experience and empathy (Olsen, 2010, p. 69; Heidegger, 1962, p. 103). The axe is in readiness for the hand only when the carpenter holding it intentionally uses the axe. In Umgang the axe is an effect of the carpenter's intention and purpose. But also, the carpenter is an effect of the axe. They are linked together in practice. Worked as an axe, the axe affects both the craftsman and the situation that arises; as well as the practical reality they make happen (Høgseth, 2007, Malafouris, 2013; Marchand, 2010, 2012).

In practical situations, solving specific tasks, we are simultaneously involved with several things related to the situation (i.e. materials, equipment, tools, conditions). In repairing a fishing net, not only the immediate parts of this equipment (net, thread, needle, float, sinker), but also the boat, fish, ocean, boat deck, winches, fishing spots, markers, and so on, are involved. Considering the fisherman in relationship to things in his surroundings, it is easy to understand that a fisherman's practice and understanding of the situation cannot be simplified to a focus on isolated objects or situations, but is an involved "thoughtful and knowledgeable eye" for knowing how individual objects are connected (Olsen, 2010, p. 71). Or, how we as human beings act and orient ourselves in our practical every day in co-existence and co-operation with things (Heidegger, 1982, p. 163).

According to Heidegger, our actions and movements are monitored by our thoughtfulness (Umsicht). We "know" through sensitivity, empathy and awareness what to do, where things are, what they offer us, how they work with (or against) us and each other (Heidegger, 1962, pp. 98-99). Herbert Dreyfus notes how, within skilled professional knowledge, thoughtfulness must be regarded as an implicit aspect of working with objects and being interwoven with them (Dreyfus, 1991, pp. 66-67). This does not necessarily mean that the artisan has a masterplan or prophetic view of what is in sight or is coming (Ingold, 2000, p. 344). Nor does it imply an interpretive or holistic knowledge held and supervised by the craftsman alone. Knowledge and practice are dynamic. In our context, the toolkit builds on the overall impact of all the ingredients involved in a practice situation - and how the

effectiveness of the ingredients (both individually and in context) helps us to maintain or complete something. It is a question of symmetric involvement: “Only if we are capable of dwelling”, Heidegger points out, “only then can we build” (1971, p. 160). This imply a few things: Firstly, that any research into practice need to consider the fully immersed nature of our practice: We are fully there. Secondly, this research needs a framework that can also handle the multiple effects of practical involvement and interference, in place of phenomenologically isolated perspectives: Being there should not make us blind to other positions, or even reduce such positions to our perspectives.

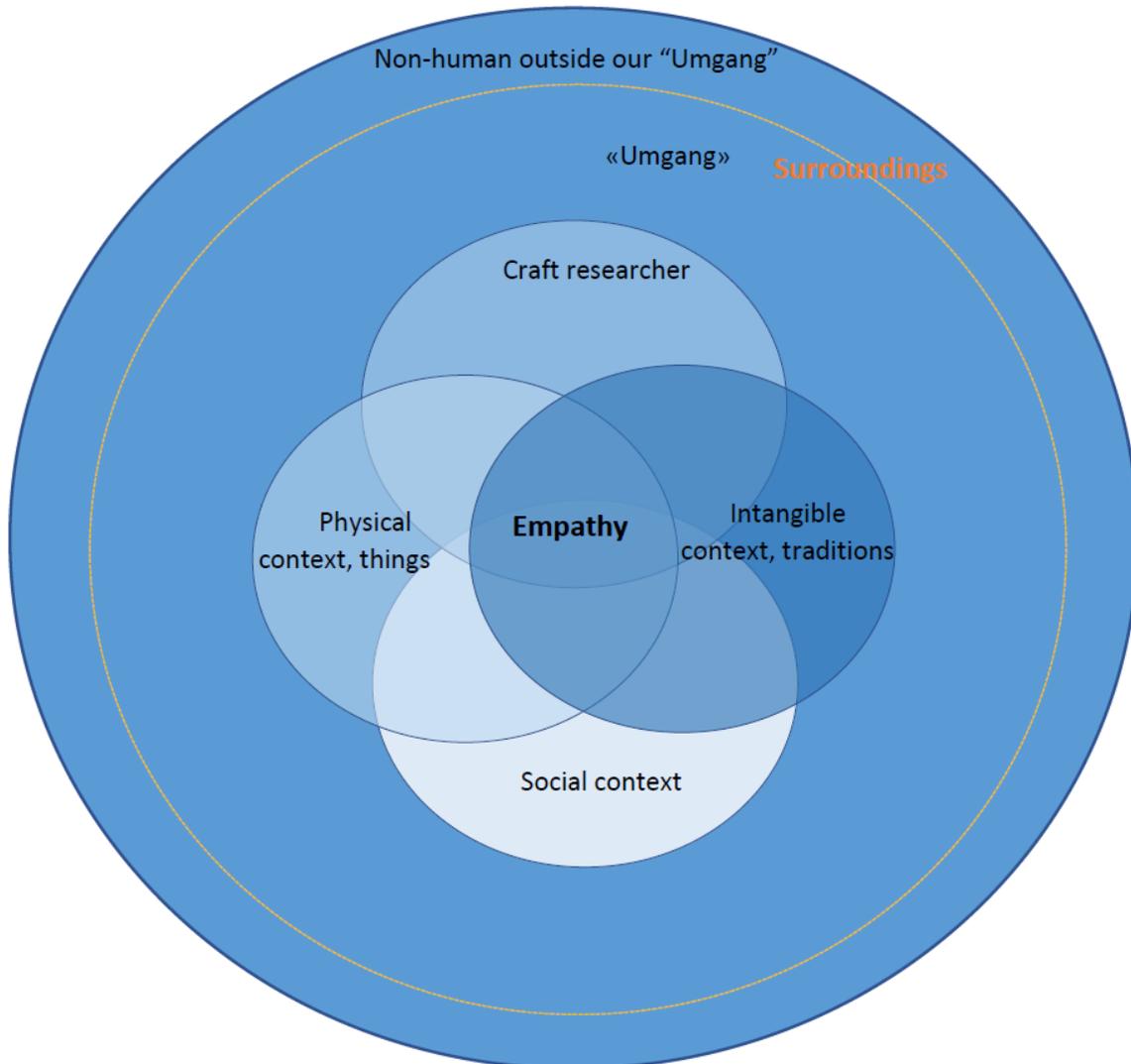


FIGURE 5: Empathic interaction between things, people, traditions and surroundings. Our surroundings are here divided between what is in our empathic reach in *Umgang*, and what is outside of this. A posthumanist question might be: Is our *Umgang* the only one? Illustration: Harald Bentz Høgseth.

MORE-THAN-HUMAN

Over the last 20 years it is possible to trace a posthumanist turn across humanistic and social science disciplines (Grusin, 2015), in form of theorised applications of posthumanist ontologies (material-practical realities). Pointed out by Colin Sterling, what is labelled posthumanism is broadly speaking two related themes: One views posthumanism as a scientific project post humanism; as more or less futuristic possibilities beyond humanism. Another sees posthumanism as post-anthropocentrism, analysing reality as decentred outside of our own human-centred participation (Sterling, 2020).

In post-anthropocentric terms, practical contexts must be seen as more-than-human phenomena (Fredengren, 2015). In terms of analytical symmetry, practice-led research needs to be more than methods inescapably anchored in human-centred phenomenologies. (Olsen, 2003, 2006, 2010). Although social interaction generates social landscapes of asymmetries, at an existential and analytical level there still is symmetry between human and non-human agents; equally present and capable of agency in social contexts (Latour, 2005; Olsen & Witmore, 2015). In its own ways, the axe makes the carpenter. Not all agents are human, imbued with human social intentionality (Malm, 2018). Still all agents might have social agency (Olsen & Witmore, 2015), and what we do (or why) need not be fully human-centred at all: We are more-than-human.

Agents and practitioners may be understood in terms of mutual relations of practical empowerment (Law, 1992; Webmoore & Witmore, 2008). The flipside to empowerment is equally mutually dysfunctional contexts of depletion and destruction (González-Ruibal, 2008, p. 261). There is no such thing as a good axe without a craftsman, no effective craftsman without an axe. There would be no craftsmen without wood to harvest, and no forest left with too many craftspeople and high demand. More-than-human practice-led research along lines of empowerment and depletion, might bring much needed developments in its own terms. In destructive terms, this is practice where non-human agency even gain the upper hand on human agency (González-Ruibal, 2008). A concept able to swing both ways in terms of functional and dysfunctional practical entanglement, is Annemari Mol's concept of interference between multiple socio-material practices (Mol, 2002, p. 121).

MORE-THAN-HUMAN PHENOMENOLOGIES

Beyond any notion of practice as strictly adherent to skilled artisans at work (Umgang), the toolkit at our disposal need not be seen merely as subjectively operated and understood by us, but rather; as human and non-human "partners-in-crime" (Law, 1992). We are ourselves working parts of the toolkit, our partners' partners within this kit. It is in a practical situation that both the practice, as well as its participants as involved partners, are enacted. However, this will necessitate going beyond a primarily subjective phenomenological focus on human practical interaction with things: We might want to momentarily leave the human perspective (Bjerck, 2019; Bogost, 2012), or in analytical terms step outside of phenomenology altogether (Latour, 1993; Olsen, 2003; Mol, 2002). Here, studying what goes on between agents at the limits of the human-centric, the full scope of human empathy might take us so far, but also becomes an anthropocentric barrier (figure 5).

In what way may such considerations be relevant to practice-led research? The archaeologist Hein Bjerck (2019) uses the machine-oriented ontology of Levi Bryant (2014) to understand the movements of sea-ice of the coast of Europe during the last Ice Age as the movements of a glacial machine with human inhabitants. The non-human cyclic agency of this ontological machine gives Bjerck some important clues to understand how practice-led research on hunting/fishing in similar arctic glacial conditions today might inform us of glacial-centric human conditions during the Ice Age.

If phenomenology is the study of impressions made, practice research needs also ask: What is making things do what? To use archaeology as example: Archaeology is not simply something archaeologists do using archaeological tools at an archaeologically defined excavation site. It is also the practice inherent in prehistoric dwelling places, in a landscape inhabited with material traces that also is doing something here; making us to archaeologists, with a toolkit, artefacts to dig, landscapes to survey and prehistory to think. Among the co-workers are not just human colleagues, but archaeologically enlisted trowels, buckets, tents, water soaking stations (figure 1). Archaeology also is the craft of the materiality of prehistoric craft, as in traces of prehistoric flint knapping to be analysed, categorized and put into typologies (figure 2). Simultaneously, archaeology is done as retro-engineering and experimental craft, in attempted reconstruction and recognition of procedures and practical processes of knapping flint artefacts (figure 3). Or (possibly repeating practice across millennia) is done by any practitioners present in an archaeological landscape, as in case of school children visiting an excavation site and impromptu start searching the upturned soil for flint at a prehistoric dwelling place, instead of eating lunch (figure 4). A prerequisite for such multi-centric analysis, and a characteristic of

posthumanist thinking, is the notion of decentred flat ontology; ontologies of practice where other agents may be equally at play as human subjects (Bryant, 2011, p. 33). This may be stated as a matter of symmetry (Latour, 2005, p. 76).

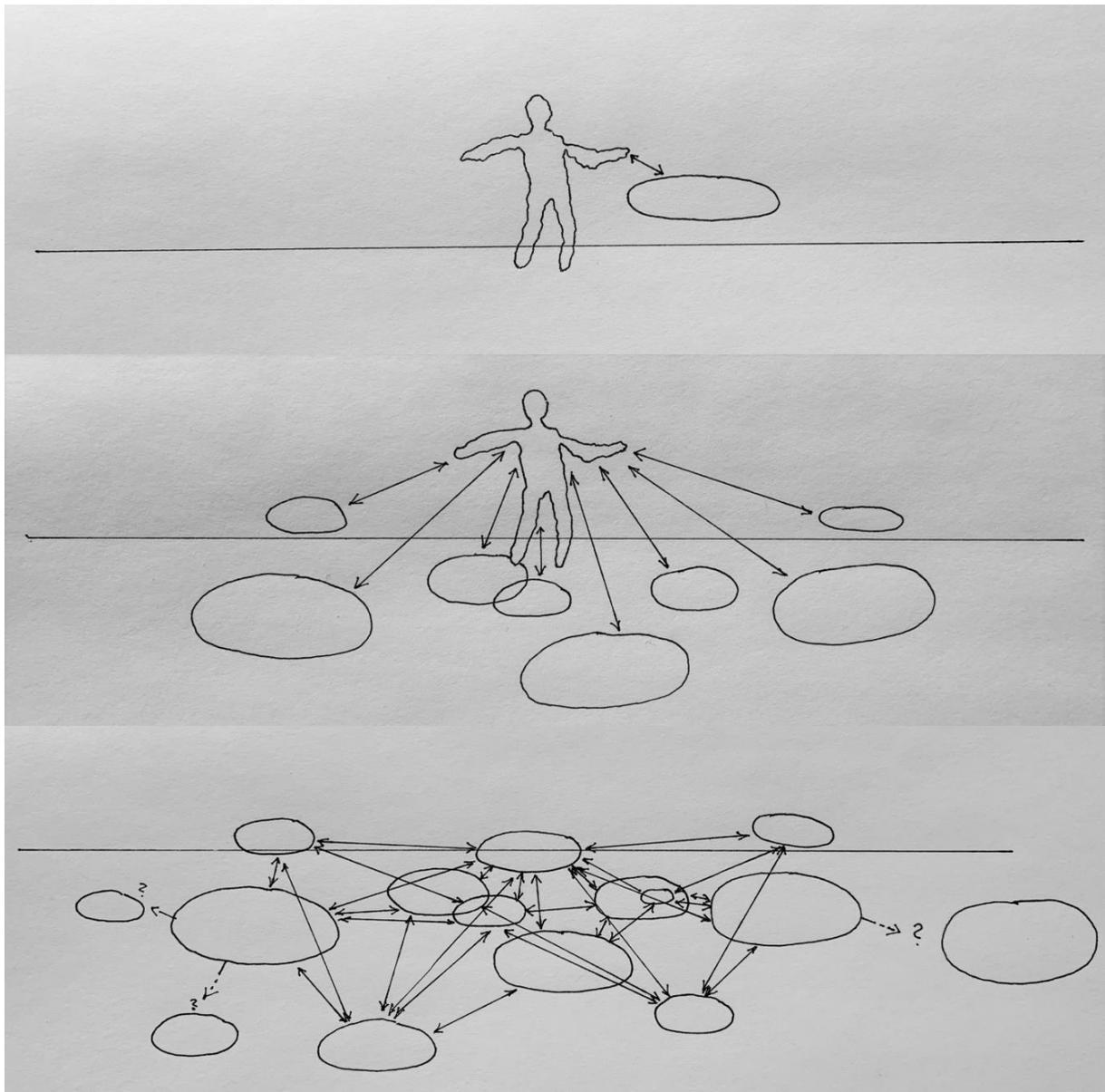


FIGURE 6-8: Schematic representations of Annemarie Mol's (2002) distinction between singular (top), plural and multiple ontologies of practice (below). Illustration: Ragnar Vennatrø.

One approach to analytical symmetry might be phenomenologies that goes beyond a subjective scope of observation and sensemaking. We might try expanding phenomenology to the point of view of other living and non-living things. One such attempt is presented in Thomas Nagel's article What is it like to be a Bat. Going beyond human-specific elements of observation, by means of structuralist mapping of fixed properties of different sensations, Nagel investigates the possibilities for an objective phenomenology "not dependent on empathy or the imagination" (Nagel, 1974, p. 449). This mainly leaves him with his structuring. Another attempt is Ian Bogost's (2012) alien phenomenology. Taking computer functioning as his departure, with the advantage of technically specified insight into how sensory inputs work and are processed within artificial processing architectures, Bogost nevertheless

ends up with a notion of mutually untranslatable phenomenologies, or largely incomprehensible unit operations within a larger flat ontology (2012, p. 28). What Bogost attempts, is a matter of reaching for other phenomenologies beyond human empathy, assuming other, non-human spheres of “Umgang” was there, outside of ours (figure 5). Phenomenologically attempting to understand a non-human phenomenology, we are left with anthropocentric speculations of metaphoric relationships outside our understanding (Harman, 2005, p. 98). One problem with phenomenology is becoming isolated within one’s own mentally embodied point of view, producing intangible perspectives that never actually grasp the reality they set apart and describe (Mol, 2002, pp. 10-12). Another aspect is what Walter Benjamin identifies as the muting of things in our human grasp, as the full extent of our empathy still involves anthropocentric reduction of something incomprehensively non-human (Andersson, 2001, pp. 48-50, 142-143, 164-165). Similarly, Heidegger points to the need for releasement (Gelassenheit) in lieu of our active empathic grasp (Anderson, 2001, pp. 165, 190; Skar, 2016, pp. 54, 58). Still humans and non-humans operate and interact with each other. More-than-human agency may still be understood in terms of practice.

PRACTICE-LED PRAXIOGRAPHIES

In treatment of various forms of knowledge, materiality and procedures enacted in parallel within the walls of a hospital in Netherland, Annemarie Mol presents an approach for considering medical practice as partly overlapping practices within multiple ontologies (Mol, 2002). Among other aspects, this leads Mol to practical processes of enactment as a common basis for materiality and knowledge formation (2002, pp. 6, 10-11). Our understanding (knowledge) and material familiarity (Umgang) with a practical world is “being done” (enacted) in practice, rather than observed (as perspectivism) or structured (as constructivism) into being (Mol, 1999, pp.75-77).

In Mol’s approach (unlike mutually isolated phenomenologies) socially overlapping, co-existing, constantly enabling and interfering, multiple versions of practice-defined ontologies may be studied as praxiographies (Mol, 2002, p. 33). Rather than a problem of centrism, the diverse practical interference-effects (2002, p. 122) between practical ontologies, as with Bjercks (2019) glacial hunter practice within the operations of a glacial machine, becomes a main analytical strength. Unlike singular (figure 6) and pluralist (figure 7) observer-centred approaches, a multiple ontological approach (figure 8) is analytically open to any practical context of human or non-human agency, including phenomenologies, as practical ontological versions of reality. In a multiple setting, any ontological practice might be seen as emergent from a larger interconnectedness with other practice (Vennatrø, 2005, 2012). Explicitly utilising Mol’s praxiographies in context of cultural heritage studies, Brattli & Steffensen (2014) and Brattli & Brendalmo (2016) are able to show how two highly specialized fields of practice, museology and cultural heritage management respectively, are highly influenced and in part determined by the practice of many external types of expertise as well as surprisingly influential non-expertise, enacting fundamental formal and informal agency within these fields. The highly specialized “crafts” of museology and cultural heritage management are in effect practiced within multiple overlapping, seemingly unrelated practical ontologies, that cannot be fully analysed as singular, isolated forms of practice (Brattli & Steffensen, 2014; Brattli & Brendalmo, 2016). This may hint to a need for practice-led research to step outside of singular contexts as well. Singular contexts lend strength to phenomenological approaches, making analyses anthropocentrically deep, yet highly intangible perspectives of practice, possibly isolating such deep practical insights from other perspectives of insight. The practice we study is always multiple, constituted by and in interference with other practices (Mol, 2002, pp. 121, 142-148).

Doing practice-led research on archaeology, would imply studying the archaeologist as practitioner, but also involves the agency of the archaeologist’s equipment and archaeological landscapes (figure 1). It is also the material practice of a Mesolithic toolmaker in the same landscape (figure 2), and the experimental practice and materiality-formation of archaeological knowledge (figure 3). And it is the totally unpredicted practice of “unskilled” schoolchildren, finding what archaeologist are totally missing (figure 4). What this means is that if you isolate the archaeologist’s practice, you are still

missing significant aspects of this practice that may not be fully found within any single practice, but is very much still “there” as interference across multiple practices.

Praxiographies of practice-led research might be a study in itself. As a contextualisation of practice, this shares similarities to interdisciplinary efforts already found within practice-led research (Rust et al., 2007, pp. 57-58, 66). An ongoing development in this regard, is formulations of T-shape methodology within craft research. One difference, however, is how analytical frameworks are grounded: Praxiographies are grounded in contexts of multiple overlapping ontologies of practice that may include, but is not based upon the analytical frameworks of practice-led research. An important aspect is Mol’s insistence on ontological practice as direct enactments of knowledge (Terje Brattli, pers. comm., January 2020). In principle similar to concepts of direct perception (Gibson, 2014/1979; Ingold, 2000; Pink 2010), Mol propose a direct epistemology in action, enacting knowledge as practice in socio-material settings without need for a priori metaphysics of observation, constructs or perspectivism (Mol 1999, p.77, 2002, pp. 6, 31-32).

ONTOLOGIES OF PRACTICE

In order to fully entail more-than-human contexts, practice-led research needs symmetric analytical contact between any human and non-human agents in a lifeworld (Damsholt & Sørensen, 2009; Olsen & Witmore, 2015). Annemarie Mol points to the importance of extending this symmetric field to include practical interconnectedness across multiple ontologies (figure 8). Multiple practical ontologies may simultaneously adhere to the same phenomenon, decentring and blurring any single socio-material practice within several overlapping practices (Mol, 1999, pp. 81-82). Each ontological version establish their distinct yet blurred practical materiality and knowledge in practice (Mol, 2002, pp. 32-33). An important aspect according to Mol, is how a practice-generated approach may be seen as seamlessly enacted across interconnected multiple practical ontological versions of reality. Whereas within phenomenological frameworks, such as Harman’s metaphorism (Harman, 2005, pp. 91-93), different ontologies are only obscurely seen as connected as partly untranslatable points of view. An essential analytical aspect to multiple ontologies, is what Mol calls interference, in accord with how multiple practice may simultaneously enact things differently as well as modify each other (Mol, 1999, p. 82; 2002, pp. 121, 143). Akin to this, Ian Bogost formulates unit operation within posthumanist tiny ontology as separate units (ontologies) that might simultaneously be part of other larger units (2012:23). But while he maintains that they may function in integration, ontological “units are isolated entities trapped together inside other units, rubbing shoulders with another uncomfortably while never overlapping” (Bogost, 2012, p. 28). The crucial point for Mol, on the other hand, is the way practical enacted lifeworlds overlap, are intertwined, and interfere with one another (Mol, 2002, pp. 121, 142-144). What makes Mol see interaction where Bogost sees isolation, is in part a question of Bogost working within a phenomenological framework that unavoidably generates points-of-view and interpretive boundaries, whereas Mol sees practice as a common denominator underlying any ontology.

Analysis of interference between different ontologies of practice might be a key element to a more-than-human practice-led approach. This would involve a symmetrical methodology that is not based on phenomenology but is still fully able to incorporate it. Or rather; avoid starting out within anthropocentric dichotomies as by default (Latour, 1993). Within a symmetric framework, where human and non-human agents can be viewed as equally immanently present, contexts of practice can be understood as flat ontology. One step further would include decentring our analysis to overlapping multiple practical ontologies mutually modifying each other. This is what Mol points to as practice research into multiple ontologies (Mol, 1999, 2002). What is generated as different ontological versions within this interplay is essential, as practices interfere with each other and enact practical knowledge and practical materiality. This makes practice socio-materially blurred with other practice in a way that instantly makes each practice in isolation something else from the multiple setting in which it is a practice of interference (Mol, 2002, pp. 32-33, 121, 142-145). Physical reality consists of multiple overlapping and interfering practical spheres of doing, in taskscapes, landscapes and environments.

CONCLUSION

Taking multiple more-than-human practices into account, praxiographies of how different practices overlap, are intertwined and are in interference with one another can be identified and studied (figure 1-4). In multiple ontologies around a craftsman, practice-led research might even reach outside the solely anthropocentric. The use of multiple ontologies, might be seen as the difference between a study of craftsmanship by acts of observation in a laboratory, and the more-than-human multiple practical conditions and hardships that effects practice-as-dwelling in a biological and topographical milieu of an age-old cultural landscape.

In terms of phenomenology, aspects of practice can be revealed that are deep under the surface of everyday life. In everyday life there is a lot more going on, producing the multiple effects of interference that fundamentally makes “being there” something different from embodied acts of observation. Building on epistemologically different requirements, practice-led research of craft science needs both. One approach that may be able to incorporate anthropocentric phenomenology of craft within a symmetric contextualisation of practice, has the shape of practice in a symmetric field of multiple ontologies.

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